

### REMARKS/ARGUMENTS

#### Status of the Application:

Prior to entry of this amendment, claims 1, 4-11 and 13-30 were pending in this application. In a final Office Action dated April 2, 2004, claims 1, 4-11 and 13-28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,740,075 ("Bigham") , in view of U.S. Patent No. 5,523,868 ("Hawley"). Claims 29-30 stand rejected under § 103(a) as unpatentable over the combination of Bigham and Hawley, along with U.S. Patent No. 5,889,465 ("Mercandante"). This amendment amends claims 1 and 14. No claims have been added or cancelled by this amendment. Thus, after entry of this amendment, claims 1, 4-11 and 13-30 remain pending in the application.

#### Claim amendments:

This amendment amends claims 1 and 14. Claim 1, which is exemplary, has been amended to recite, *inter alia*, "an electrical transmission medium configured to transmit electrical power from the electrical power source to the optical network node." Support for this limitation may be found at, *inter alia*, lines 16-19 on page 11 of the specification. Claim 1 has also been amended to indicate more clearly that the "alarm system" is "incorporated within the electrical power source."

#### Interview Summary:

The undersigned greatly appreciates the Examiner's consideration in allowing a telephone interview after the final rejection of the previously pending claims. In addition, the Examiner's courtesy and professionalism during the telephone interview are sincerely appreciated. In the telephone interview, no agreement was reached regarding the allowability of the pending claims. The undersigned argued, as explained in more detail below, that the power loss monitoring circuit of Hawley does not disclose the alarm system of, e.g., claim 1. The Examiner understood this argument but requested a written response prior to evaluating the merits of the argument. Hence, this amendment explains in detail the Applicants' position regarding the applicability of Hawley to the pending claims in the application.

Rejections Under 35 U.S.C. §103(a):

The Office Action has rejected claims 1, 4-11 and 13-30 under 35 U.S.C. §103(a) as being unpatentable over Bigham in view of Hawley and, in some cases, further in view of Mercandante. The Applicants respectfully traverse the rejections and submit the following arguments in support of their position. The cited references, either alone or in combination, fail to disclose each limitation of the claims.

The Office Action correctly notes that Bigham fails to teach that the power source can comprise an alarm system configured to monitor the operation of the electrical power source and provide power source operation information. The Office Action contends, however, that Hawley teaches this limitation and that the references, when combined, render claim 1 obvious.

As noted in the Applicants' prior response, however, Hawley does not teach an alarm system configured to monitor the operation of the electrical power source and transmit electrical power source operation information to the telecommunications service provider. Instead, Hawley (column 5, lines 32-33) teaches an "[a]pparatus for monitoring power loss in a remote optical network unit." In fact, Hawley's disclosure does not even contemplate an alarm system incorporated within an electrical power source, as claimed, for instance, in claim 1. Instead, Hawley (*see, e.g.*, Figs. 2 and 3a) discloses a detector (34) incorporated within the optical network unit itself. This detector merely acts as a "deadman's switch," which simply detects whether the optical network unit actually receives power. As such, Hawley fails to disclose any monitoring of the power source itself. Indeed, since the detector is incorporated within the optical network unit (as opposed to within the power source), it is difficult to see how the detector unit could monitor any operation of the power source other than the mere presence/absence of the requisite supply voltage.

In contrast, the invention of claim 1 recites an alarm system incorporated within the electrical power source itself. In the telephone interview, the Examiner suggested that the term "electrical power source" is broad enough to encompass even a supply line that could provide a supply voltage to the optical network unit (and, therefore, purportedly would read on Hawley's disclosure of a line connected to a "network/local" power supply, as shown on Fig. 3a

of Hawley). Claim 1 has been amended to recite, additionally, an electrical transmission medium configured to transmit electrical power from the electrical power source to the optical network node. The inclusion of this element indicates clearly that the term “electrical power source” does not include a supply line but means an independent source of electrical power, which can be transmitted by an electrical transmission medium to the optical network unit.

As amended, the electrical power source of claim 1 is clearly distinct from the supply line of Hawley, so even if the detector (34) of Hawley could be considered to be an “alarm system” or to be “incorporated” in the supply line of Hawley’s Fig. 3a (both of which the Applicants dispute), Hawley’s detector still could not be considered to be incorporated within the electrical power source itself, as is recited in claim 1. This difference is a patentable distinction. Merely by way of example, the alarm system of claim 1, being incorporated within the electrical power source, may monitor the operation of the electrical power source, which can include much more than merely the presence or absence of a supply voltage reaching the optical network unit. Merely by way of example, as recited in claim 27, electrical power source operation information can include parameters such as “information about an AC power source, information about a rectifier’s voltage, information about a converter’s voltage, and information about a current limiter’s current,” and the like. The detector (34) of Hawley presumably would provide no facility for this type of monitoring, since it is disposed not within the electrical power source but within the optical network unit itself, where such information presumably would be unavailable.

For this reason, Hawley fails to teach or suggest monitoring the power level and operational data in the absence of a power loss as is claimed, as described above, in claim 27. Clearly, therefore, the teaching of Hawley is not an alarm system to monitor the operation of an electrical power source but, in fact, a system for detecting and indicating a power failure at an optical network unit. Hawley, therefore, cannot be considered to teach (or even suggest) the limitations of claim 1. For at least these reasons, claim 1 is allowable. For at least similar reasons, claim 14 is also allowable over the cited references.

Moreover, dependent claims 4-11, 13 and 15-30 are allowable as depending from allowable base claims as well as being directed to specific novel substitutes. For instance, claim 18 is directed to an electrical conducting medium configured to conduct the electrical supply voltage and the communication data from the optical network node to a remote user device. Bigham does not disclose powering remote user devices but, instead, limits its teaching to communication with remote user devices.


For at least these reasons, the cited references fail to render claims 1, 4-11 and 13-30 unpatentable. Thus, the Applicants respectfully request that the rejections under 35 U.S.C. §103(a) be withdrawn.

### CONCLUSION

In view of the foregoing, the Applicants believe all claims now pending in this application are in condition for allowance and an action to that end is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 303-571-4000.

Respectfully submitted,

  
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